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Easter Island and the Pacific

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Title page drawing of Släbro Runic Stone from Sweden, back cover drawing of fragmented *moai* with inlaid eye from 'Anakena, and drawing of *moai* in Rano Raraku on page 9 all by Paul Horley.

Back to the Sea: Rapa Nui's *Ahu* Seascapes

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Abstract - One of the most striking characteristics of the coastal *ahu* of Rapa Nui is that they are situated with their backs to the sea and their moai facing landwards. Extant work has used generalized socio-economic perspectives to characterize the landward *ahu* territories that fall under the moai gaze. By contrast, this article reflects on the seaward orientations of the *ahu* and the differing scales of physical and conceptual interface between the *ahu*, the *ahu* landscapes and the sea. This is considered particularly from a sensory perspective and at a person-centred scale.

Introduction

Over recent decades work on Rapa Nui settlement, quarrying, resource acquisition/and ceremonial structures has begun to incorporate a symbolic dimension (Van Tilburg & Lee 1987; Martisson-Wallin 2002), but at the same time functionalist explanations of access to land and sea resources and socio-economic premises of territory formation have predominated (McCoy 1979; Rounds-Beardsley 1990; Shepardson 2005; Stevenson 2002). Pre-eminently, the ceremonial platforms (*ahu*) of Rapa Nui, particularly the "complex *ahu*" with anthropomorphic statues (*moai*), have been studied in terms of their construction elements, their chronology, and the spatial density, and distribution of specific architectural types (Martinson-Wallin 1994). Strong lineage-based ties have been advocated between the *ahu* and the land on which they are situated and, on the basis of idealized Polynesian models of chieftain territories, these ties are recurrently perceived as having been rationalised in the spatial clustering of *ahu* and their association with hypothesized geometrical segments of territorial space — *tapere*, which extend from the coast towards the interior (or vice versa).

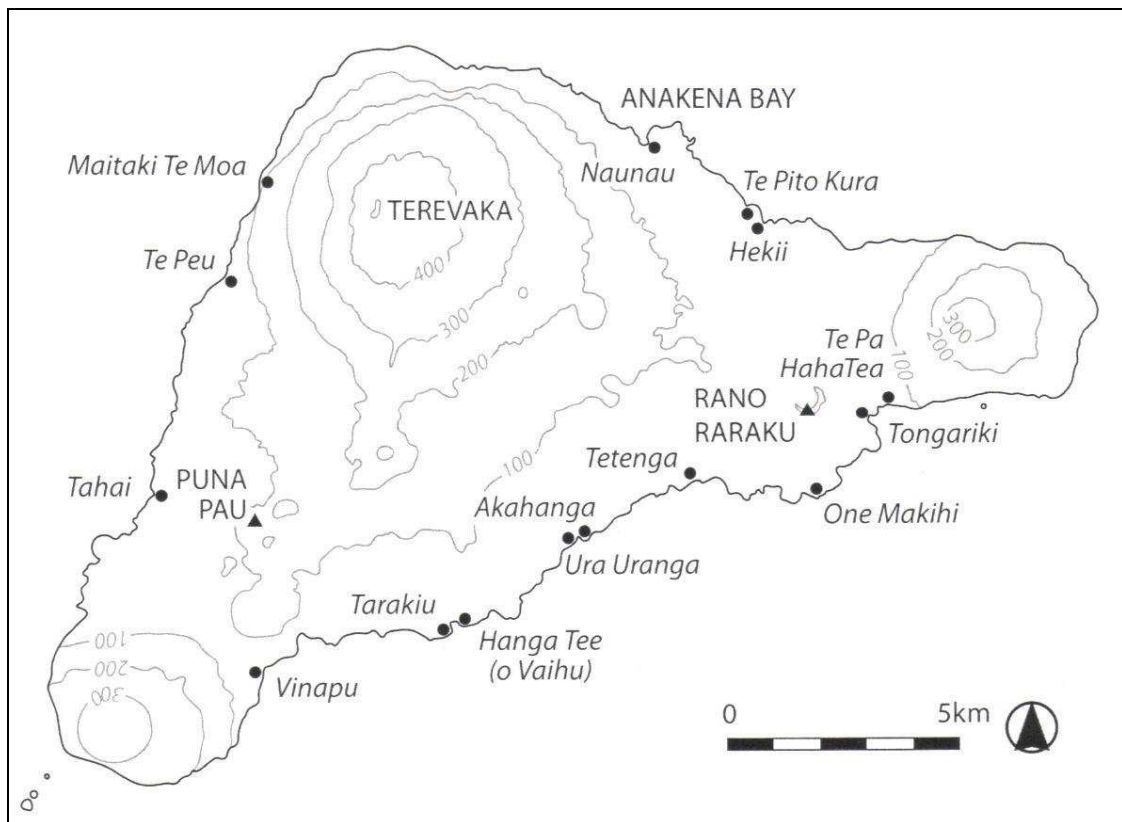


Figure 1. Map of Rapa Nui with sites mentioned in the text.

By contrast, this paper explores the spatial settings of *ahu* at locale- and person-centered scales. It is interested in place-specific social practice and how understandings of sea and land were potentially linked and interconnected. A focus on "place" as a point of social practice raises different questions concerning how Rapa Nui monumental landscapes were conceived and constructed. This study draws upon contemporary Post-Processual, British academic traditions of landscape archaeology and aspects of their wider European/application (Graves & Ladefoged, 2002:3; Hamilton and Whitehouse 2006; Skeates 2005; Tilley 2004). Such approaches to human-populated landscape spaces adopt the stance that economic and subsistence organization may be wholly subsumed by the ideological factors behind the configuration of architecture and its landscape positioning (Tilley 1994). This paper offers a different approach to previous and current work on the island in being based on fieldwork that emphasizes subject-centered understandings of landscape — but in combination with science-based survey techniques of topographic, geophysical, and surface finds mapping. The ideas that are discussed below were generated during three seasons of surface landscape survey on Rapa Nui in January / February 2006-2008 and so far more than 30 *ahu* have been studied in some detail. The method used was to systematically walk the *ahu* locales and to combine textual recording with GPS satellite mapping of the landscape and locale-specific characteristics of the *ahu* and their associated architectural components (Figure 1). This work was guided by a focus on body-centered sensory perceptions of space (phenomenology), in particular perceptions of visibility, sound, and the orientations of features and place with respect to human body positioning and the sea. The process as a whole was reflexively informed by what we already know about the archaeology and palaeo-environment of these spaces. Our textual recording of observations was standardised using recording sheets with prompt questions (see Table 1). Overarching the concept of land-tied identities, one of the most evocative characteristics of the locations of the elaborate *ahu* are that their high, dense walls face the sea — while the statues facing inland "turn" their backs to sea. Simplistically, this seems to indicate a focus of concern on the land rather than the sea and has often been interpreted as a symbolic way of controlling people and land under the gaze of the *moai*. But, equally, by facing inland the *moai* gain the sea as a backdrop, and the people on land thus have their eyes and sensory perceptions directed towards the sea. However, before focusing on sensory perception the paper will first explore the extent to which the sea as a cosmological and conceptual percept was elemental to Rapa Nui *ahu* architecture.

Fishing and Canoes

By the time of European contact, the inhabitants of Rapa Nui lacked seaworthy boats, yet the earliest inhabitants were descended from Polynesians who are legendary for their mastery of ocean voyaging. Bones and coprolites from middens belonging to Rapa Nui's early settlement phase indicate an initial reliance on protein from deep-sea fish such as tuna, and sea mammals, notably the porpoise and spinner dolphin (Martinsson-Wallin 1994:25). Tuna occur 1 km off shore and would have required both substantial canoes and fishhooks for their capture. Likewise, hefty sea mammals could not have been hunted by line or spear fishing from shore and must have been harpooned far offshore, from sturdy ocean-going craft. Aggrandized stone fishhooks, together with the numerous petroglyphs of canoes, deep-sea fish — particularly tuna, and fishhooks all point to the existence of strongly ceremonial aspects of fishing and canoe use (Lee 1992:112; Martinsson-Wallin 2002:74). Although we lack information on dating large and elaborate stone hooks (which imply fishing for shark and tuna), all of the earliest indications that we do have suggest deep-sea fishing and a culture based on large canoes would have been essential and symbolically-charged tenants of life to the first settlers. The canoes observed by the 16th-century European voyagers to Rapa Nui were characterized as few in number, small, and scrawpily built (Best 1954:302-303). The first canoes, however, are presumed to have been built from the robust, now extinct, *Jubaea*-related palm that pollen and root casts indicate to have been formerly abundant on the island (Flenley 1991; Stevenson 1997:127). In purely economic terms the time of earliest settlement has a phase-specific, seaward orientation. By contrast, bones of fish and sea mammals are lacking in post- AD 1400 deposits (Martinsson-Wallin 2002) and the relentless diminution of trees would have eventually resulted in the demise of large canoes. On the one hand cultural restrictions and taboos of access to the seascape and its resources would have secured a sustainable fish catch and reinforced the efficacy of ritual behaviour (Barber 2003), while on the other hand the later shift of ritual and protein procurement to chicken and other fowl (Martinsson-Wallin 2002) would not have necessarily excluded continuing metaphoric reference to ancestral canoes.

Ahu and Canoes

Best (1954:35) describes Maori canoes as "vessels in the hands of gods". Indications that the conceptualization of Rapa Nui's *ahu* and the idea of canoes were likewise physically, metaphorically, and symbolically connected are dispersed through the Polynesian ethnographic literature. The tools and techniques needed for building and land-based moving of ocean-going canoes share/much in common with those required to carve and erect Rapa Nui's monumental statues (Van

Tilburg 1994). This includes the use of stone chisels, thick ropes, carving and lashing, and the mechanics of levering and pivoting. Van Tilburg posits that there is not much difference between raising the mast on a canoe and raising a statue on an *ahu* (transcription of Van Tilburg in NOVA 2008; Van Tilburg (1994). Van Tilburg's own experiment at moving a statue demonstrated the viability of her premise that a canoe ladder comprising parallel wooden rails fixed by cross pieces could have been effectively adapted for transporting the *moai* to the coastal *ahu*. Canoe ladders were widespread on Pacific islands for transporting heavy wooden logs, which were cut in the forest, shaped into canoes, and then transported to the coast.

Table 1. *Ahu* Landscape Characterisation Prompt sheet.

Ahu name:		GPS location of <i>ahu</i> :	
Rear/backspace of <i>ahu</i>			
Time:	Date:	Tide:	Weather conditions:
1	Survival and size of back space		
2	Relationship of architecture to sea		
3	Relationship of backspace to seascape		
4	Access to backspace		
5	<i>Ahu</i> and crematoria: types of structural materials and landscapes places whence they come		
6	Crematoria related to 1 and 5 & location		
7	Surface finds distribution — obsidian, basalt tools, coral pieces, <i>etc.</i>		
8	Consideration of the past visibility and inter-visibility characteristics of the back space and its architecture		
9	Sound and smell characteristics		
10	Other		
Front of <i>ahu</i>/plaza area			
Date:	Time:	Tide:	Weather conditions:
1	How the plaza area is defined: correspondence with landscape features, levelling, clearance, <i>etc.</i>		
2	Possible approaches to the plaza and their characteristics of topography, access, sound, vision, <i>etc.</i>		
3	Evidence of structures on the plaza — position, materials, visibility and other sensory characteristics		
4	Evidence of slipways and topographic access to the sea		
5	Surface finds distribution		
6	Structural materials and landscape locations from which they come		
7	Consideration of the past visibility and inter-visibility characteristics of places and features associated with and beyond the plaza area		
8	Other		
<i>Ahu</i> territory inland of plaza			
Date:	Time:	Tide:	Weather conditions:
1	Landscape characterisation – topographic boundaries, relationship to other areas		
2	Present and past visual relationships of the <i>ahu</i> landscape area to the <i>ahu</i> and its <i>moai</i>		
3	Sensory awareness of sea		
4	Prominent rocks/crags/discrete topographic features		
5	Structures: caves, <i>poro</i> pavements, boat houses, <i>umu</i> , <i>manavai</i> , rock mulching, <i>etc.</i> — and their topographic position, visibility, sound and other sensory information, and construction materials		
6	Distribution of surface finds		
7	Other		

Polynesian double-hulled canoes were hewn from massive hardwood trees weighing 6 to 12 tons each, while an average-sized statue weighs 12 tons and there are statues weighing as much as 40 to 70 tons, thus the land-based transportation of both are linked by being collective projects requiring the gathering and cooperation of a work force beyond the resources of single family. Accounts of Polynesian canoes indicate a general length from c. 18-24 m but in particular, the voyaging canoe, which was recorded as measuring up to a massive 37 m, can be viewed both as/a monument and as construction of monumental scale (Barthel 1978:161; Buck 1938:9; Finney 1979:329). *Ahu* and canoes are conceptually linked not only by their collective labor of construction but also by the unification of construction elements provided by, owned by, or dispersed amongst, multiple persons and communities. Metraux recorded in the 1940s that "the few boats on Easter Island are the joint property of all who have contributed to their building, either in work or in the furnishing of wood" (Metraux 1971:144). For example, the 19th-century war canoes of the Marquesas island of Nuku Hiva's (Madison's Island) are described as being

... formed of many pieces and each piece, and indeed each paddle, has its separate proprietor and when a canoe is taken to pieces the whole is scattered about the valley and divided perhaps among twenty families ... and when she is to be set up everyone brings his pieces with materials for securing it. (Porter 1815:367.)

In a similar vein the construction of a Rapa Nui image *ahu* maximally brings together dispersed resources and architectural elements garnered and realized by various communities across the island — *moai* from Rano Raraku, scoria *pukao* and facia from Puna Pau, beach boulders (*poro*) and coral from rock pools (for the *moai* eyes), and dressed basalt blocks from various quarries.

Handy (1927:282,285) recorded that Polynesian canoe building was a "consecrated industry" and "sacred labor". In Micronesia, Gilbert Island canoe building was likewise a sacred activity with construction only taking place on ground that had been blessed (Grimble (1924:102). Thus, just as the building of an *ahu* was a work of religion tied in with the ancestors, the construction and voyages of large Polynesian canoes were ritually imbued enterprises. Canoes likewise encompassed concepts of social affiliation, genealogies and descent, and land claims related to the point where a voyaging "immigrant" canoe touched shore. Maori genealogies are traced back to named canoes and migratory ancestors (Buck 1950:51-59; Finney 1991:383-86; McLean 1965:302; Orbell 1985:107) and Hotu Matua's legendary landing at Rapa Nui's Anakena Bay lies in this category (Barthel 1978:160 ff). Recurrent ethnographic examples suggest that Polynesian *marae* (ceremonial platforms) and canoes are physically and metaphorically juxtaposed in the ceremonial / ritual context. Porter (1815: 409-410) in his descriptions of Nuku Hiva observed /how four splendid war canoes were placed near a *marae* grove. The most splendid canoe — belonging to a deceased chief— was adjacent to platform and all of the canoes were filled with many human remains and effigies awaiting the metaphorical paddling of each canoe to the place of destination for the dead.

Caution is self-evidently necessary when plucking individual examples to support a premise, but collectively this melange of observations hints at a pivotal conceptual relationship between the community monuments of the land — statues and *ahu*, and the community monuments of the sea — canoes. There are certainly many indications that the connections highlighted above are more than just based on transferable technologies in a utilitarian sense. The Rapa Nui *ahu* with their colossal statutes potentially drew upon the sacred role of the canoe that is central to Polynesian societies (Ellis 1871). In east Polynesian island tradition the *marae* is recurrently conceptualized as a canoe — thus metamorphosing the *marae* into a sacred vessel transporting the ancestors. In Tahitian tradition the canoes themselves were thought to sail upon the ocean as *marae* — floating temples of the gods (Handy 1927:167). This parallel duality of ascription is also suggested in the shared symbolism of masts on ships and statues on platforms as performing as phallic imagery and representing lineage descent (Handy 1927; Van Tilburg 1994:82; Van Tilburg & Lee 1987:134).

Ahu Routes to the Sea

In the Polynesian realm of ideas, ceremonial platforms were considered as the umbilical cord of the land and the chiefs umbilical cord was placed there (Martinsson-Wallin 1994:128). The *moai*, when erected on the *ahu*, take up a physical position between earth and sky — connecting., and mediating between people and chiefs, and between the chiefs and the spiritual world (Van Tilburg 1994). Equally importantly, they also physically intercede between land and sea. The coastal *ahu* are located at Rapa Nui's physical interface of land and sea. The backs of many of the *ahu* on the south, south west and north coasts surmount basalt flows or extensive lava sheets that run into the sea, like cords or lashings linking land and sea (e.g., the One Makihi basalt flows running

from the back of the *ahu* into the sea, and the sheets of lava at the front and back of Ahu Heki'i over looking Hanga Ho'onu (Martisson-Wallin & Wallin 2000, fig. 12). The back areas of other *ahu* are naturally staged down to the sea via rock-pooled terraces (e.g., Akahanga, One Makihi, and Tarakiu) or blend with the shoreline, as for example, at Tongariki, Te Pa Haha Tea, and Te Pito Kura, all of which are only a few meters above sea level (Smith 1961:195). Many of the complex image *ahu* are located in small bays that have prime access to the sea and excellent marine resources. The historic and present-day names of the *ahu* and their associated bays suggest that several of the *ahu* are located/in places where the water has special characteristics, such as at Hanga Tee o Vaihu — where "Vaihu" means "where the wind whips up the water". The placing of ceremonial structures close to the sea shore effectively made the associated sea areas *tapu* for ordinary people by obstructing a near view of, and passage to, the sea — which ethnographic data indicates as being a zone, together with its fish supply, that was the reserve of chiefs (Ayers 1981; Martisson-Wallin 2002:74). The rear walls of the *ahu* are not only seaward, but also have the most elaborate, monumental stonework of the structure and this is suggested to be a fairly early trait — AD 1100-1200 (Martinson Wallin 2002:74). This, and the fact that the dorsal designs on the backs of the *moai* present themselves to the seaward side, all affirm the importance of the *ahu* prospect viewed from the sea. Vinapu, for example, is at its most architecturally visual from the sea (Mulloy 1961: fig.. 26).

In many parts of the island we have seen wide paved roads which disappeared straight down to the sea ... they were called *apapa*. A *papa* means "unload" (Heyerdahl 1965:176).

The *ahu* are more often than not strategically placed at good positions to get in and out of the sea and in some cases paved ways running down to the sea can be identified. Such "pavements to the sea" were first noted associated with the southwest coast Tahai complex (Thomson 1891:486).

...this slope paved regularly with small round boulders, having the very appearance of having been constructed as a way for hauling out boats. The coast in this vicinity is rock bound, but a narrow channel leads from the paved way out to the sea.

These ways or slides down to the sea have carefully fitted stones that create a steep, smooth slope to the water's edge (Figures 2, 3, & 4). Given that they provide enough berth to accommodate large or double-hulled canoes, and the fact that at the base of the slipways the waters at the high tide are deep enough to cause no difficulty in hauling up, or launching, a canoe, it seems plausible to suggest that they are indeed canoe ramps (Best 1976:170 — for canoe dimensions; Macmillan Brown 1924:70). In some cases the ramps are highly monumentalized. This is at its most dramatic at the Tahai Complex where a ramp and landing area are architecturally framed by Ahu Ko Te Riku and Ahu Vai Uri and backed by Ahu Tahai (Figure 2). This ramp provides a highly visual focus point that constitutes the central architectural core of the complex (Figure 4). Here a deep and naturally protected channel passes along the north side of Hanga Moana Vero-vero to give access to a poro-paved "wharf edge that is/butted by shallow, calm water from which canoes could readily be lifted on to land (Mulloy 1970:12, fig.23). Previously published examples, together with our on-going fieldwork, confirm the presence of numerous, now rapidly deteriorating, paved ramps down to the sea positioned in juxtaposing proximity to individual *ahu*. Examples include Hanga Tetenga, (Figure 3) west side, Te Pito Kura —just round the coast on the west side, Vaihu — several on the west side (Figure 4); Akahanga, and Ura Uranga — single examples on the west side of each *ahu*. Vinapu, although positioned within a cliff-top valley some 27 m above sea level, had a prepared slipway down to a sheltered landing place on its east side. This is illustrated by Mulloy (1961:99, fig.26), but is now nearly destroyed. These slipways / canoe ramps would have required constant maintenance — the stones stayed in place by their own weight and were not-cemented and maintaining access to the sea would have been a key activity at these *ahu* (Mulloy 1970:19). In other cases access to the sea for sea-going craft is self-evidently naturally supplied — pre-eminently at Anakena Bay directly behind Ahu Naunau, where the beaching of large canoes on the bay's white coral sands would have been easily managed. Several *ahu* are almost at ocean-level (see above) and Te Pito Kura for example is only 3 m above sea level of Hanga Kouri at a point where the water is so shallow that it affords an ideal landing place for craft drawing little water (Mulloy 1961). At Hanga Tee o Vaihu the slipway nearest the *ahu* on its west side is associated with a shallow inlet that has been cleared of boulders to create a channel wide enough to enable craft to come alongside a *poro*-paved landing stage (Figure 5). Thus, while there is no wholly consistent architectural strategy, the recurrent pattern is that of an association between *ahu* and natural and/or enhanced easy access points to the sea. The effect of this association is to ritualize and heighten the concept of going to sea and the potentially concurrent idea of voyaging. Indeed, the eyes of the *moai* would be the last land-based image encountered when setting forth on the Ocean.

Architecture and Referencing the Sea

There are widely recognized sea referents in Rapa Nui's architecture. The backs of some of the *ahu* platforms,

such as Hanga Tee o Vaihu, have a canoe-like bow, which thus provides a boat-like architectural base (Van Tilburg & Lee 1987:146) and there are canoe-shaped burial cairns (*ahu poepoe*). The most commonly noted form of canoe-shaped architecture are the *hare paenga* — the boat-shaped houses of the elite that are situated proximate to *ahu*, and their *paenga* (stone foundations) were often incorporated in the walls of *ahu* platforms. But the associations go beyond these sea / land architectural crossovers and relate to the very materials of construction. *Poro*, surf-worn basalt beach cobbles, were elemental components of specific architectural and conceptual parts of the *ahu*, specifically the sloping front ramp and the

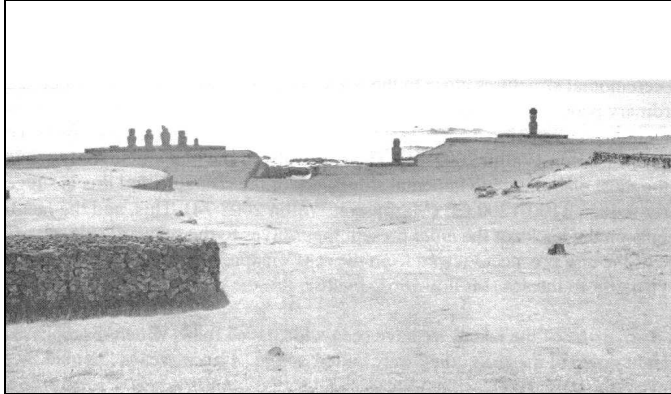


Figure 2. The Tahai complex with the "canoe ramp" located between Ahu Vai Uri (left) and Ahu Tahai (middle).



Figure 3. "Canoe slipway" on the west side of Ahu Tetenga.



Figure 4. Arena-like "canoe slipway" of the west side of Ahu Hanga Tee o Vaihu. The location of the Figure 5 can be seen on the far side of the bay.

abutting plaza pavement. *Poro*-paved slipways link the land and sea, and associated *ahu*. "Sea pavements" of *poro* front the boat-shaped houses. Inland, *poro* pavements associated with various domestic structures are a common occurrence. *Poro* were also included within the structure of *manavai* and usually one or more *poro* were included in c. five stones that form the retaining box of an *umu* (earth oven) (Figure 6). Inland, given the local availability of columnar basalt for cobbles, it is particularly interesting that *poro* were used for components of both *ahu* and domestic structures, and this suggests that the sea boulders were meaningfully chosen, sea-derived constituents of inland architecture. A similar interweaving of land and sea materials occurs with sea coral, which is relatively prolific in the rock pool areas at the back of some *ahu* (e.g., Tarakiu and One Makihi). Coral is most famously used for the eyes of the *moai*, but inland small quantities were recurrently incorporated, alongside calcareous sea algae covered stone, in the walling of *manavai*. A Rapa Nui legend tells of the role of sea-associated materials in crop planting, specifically *karakama* (coral stones) and seaweed, to exert a symbolic magic — to bring rain and promulgate growth (Englert 2006:31).



Figure 5. A stone-cleared channel at Hanga Tee o Vaihu that provides access to a "canoe ramp"

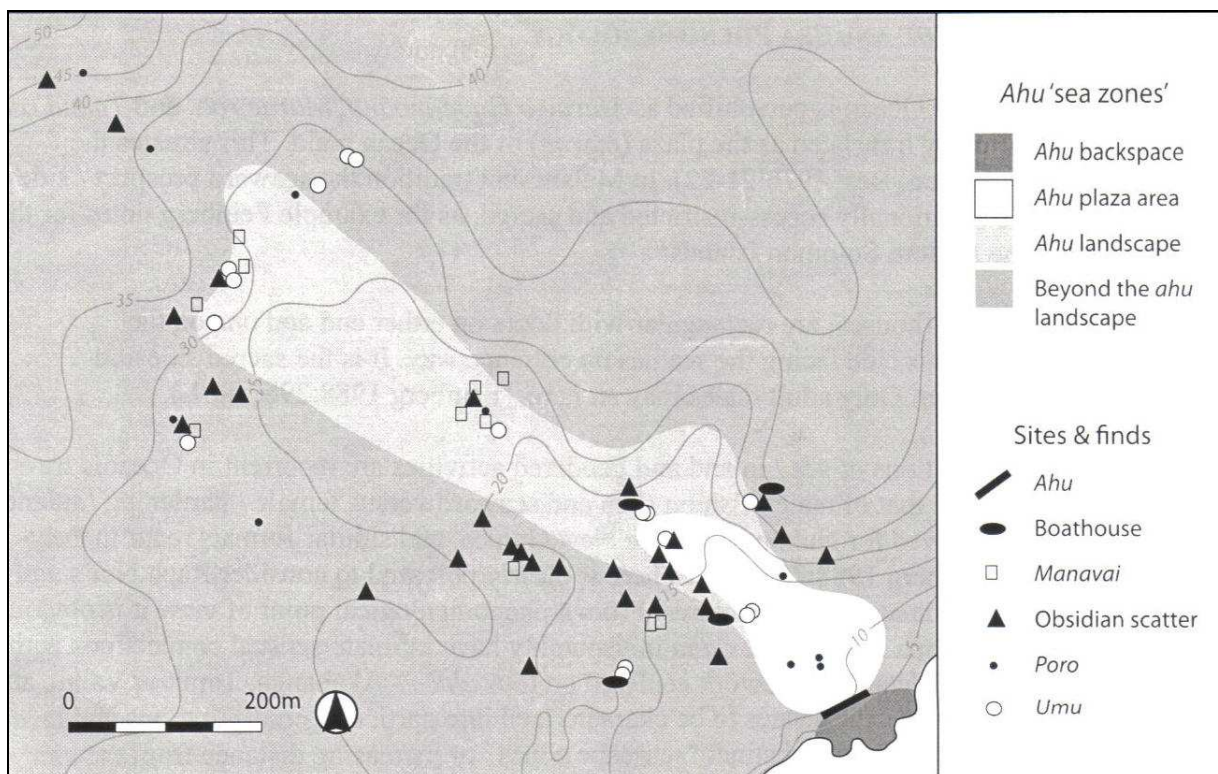


Figure 6. Ahu Seascapes Zones. Map of the topographic location of Ahu Ura Uranga showing the locations of major finds and types of architecture with respect to the major zones of "sea awareness" (the *ahu* back, the plaza, and the "ahu landscape") for communities under the "moai gaze".

The Sacred Sea – *Ahu* and Sea Phenomenology

In Maori myth the Ocean is personified as *Marae o Hure-moana*, *Marae roa*, and *Tuhua roa* — which are variously translated as the plaza (*marae*) of the Ocean maid. This situates the Ocean as a sacred place (Best 1976:21-22). In Melanesian tradition the seaward prospect / side of architecture is traditionally access-restricted and sacred, as for example Feinberg notes for the Anuta atoll in the Eastern Solomon Islands:

The buildings [houses] are rectangular with doors on either end and one on the inland side. This side facing the sea has no entrance way. It is the sacred side and place of honour. Only adult males may sit here (Feinberg 1988:296; fig.1.).

The binary oppositions of sea / inland and gendered activities are recurrent in Oceanic traditions. These include that of male / fishing / sea and seaward versus female / gardening / inland, which Feinberg observed in Nukumanu, Papa New Guinea, and similar formats recur in Polynesian contexts (Feinberg 1988:296,302). There is clearly potential to consider Rapa Nui's *ahu* within such sea-orientated binary structures. From a phenomenological point of view it is obvious that the majority of Rapa Nui complex *ahu* indisputably have intimate sensual connections with the sea. The results of detailed fieldwork centred on four *ahu* — Akahanga, Tarakui, Vaihu, and Ura Uranga - allows these experiences to be characterized into particular configurations and levels of intensity associated with four distinct "seascape zones" of increasing distance from the *ahu* and the sea: i) the back area of *ahu*; ii) the plaza and pavement area immediately in front of the *ahu* ramp; iii) the topographic setting of the *ahu* beyond the plaza — often a valley; and iv) the immediate landscape beyond the topographic zone of the *ahu*, which is generally invisible from the preceding zones (Figure 6). These zones not only have particular relationships with the sensory substance of the sea but also with its location on the horizon. Polynesian literature recurrently notes how the seaward horizon is a supernatural distance that delimits the island world and is variously the place from which the ancestors came, a place that the souls of the dead travel to, and a magical destination for voyaging canoes (Helms 1988; Patton 1996:139).

i) The area at the back of the ahu (direct interface with the coastline).

Experientially, at a human scale, the backs of *ahu* are hidden spaces that wholly focus on the sea. The height of the *ahu* platform fully screens the back area and its associated activities from those in front of the *ahu*. Both ends of the *ahu* / *ahu* back space are rarely inter-visible. Visibility along the space immediately at the back of *ahu* is often inhibited by the curve of the platform wall, or by changes in the orientation of its line (e.g., very obviously at Hanga Tee o Vaihu and Akahanga). Yet, the backs of many *ahu*, especially around the south coast, are inter-visible with each other and generally very visible from the sea. This suggests that a unique relationship with the sea is the more dominant architectural and spatial concept than solely securing the secrecy of activities undertaken at these locales. Landward access to the back of *ahu* is often controlled, and restricted to one end of the *ahu* by the strategic placement of one wing right up against the bay. For example on the south coast at Tarakui, Hanga Tee o Vaihu, and Akahanga, passage to the back is only possible on the east side of these *ahu* and body movement is then directed right towards the west end where *ahu* crematoria are recurrently, although not exclusively, situated.

Here, the line of passage creates the potential imagery of cremating the dead against a backdrop of the west and the setting sun — or the Polynesian Hawaiki, the mythical land in the west from whence the ancestors came in canoes and the place to which the human spirit returns in death (Orbell 1985). There are, however, some exceptions to the location of crematoria in the west. On the southwest coast at the Tahai Complex, access to the crematoria is again restricted to a single direction of ingress to each *ahu* back — again the crematorium is situated at the right end of each *ahu* — when the spectator is facing seaward, but the direction of approach in these particular examples is northeastwards. Thus, while the concept the west sea horizon is important, seaward / landward relationships may be the overarching structuring principle in the in the layout of an *ahu* complex rather than simple adherence to absolute cardinal directions or an anthropocentric system of left-hand / right-hand directions. This has reverberations in Campbell's (2006:113) observation that the placement of *marae* around the perimeter of the Melanesian island of Rarotonga is based on a landward / seaward orientation with respect to the positioning of the Ara Metua ritual road that encircles the island. Here the *ahu* face into the road and the more impressive *ahu* on the landward side of the road thereby face seaward and have the greater status.

In addition to the *ahu* back area having controlled visual and physical access, it is characterized by strikingly particular sensual qualities, which would have heightened the special nature of the activities that took place there. Here, interpersonal sound communication is immensely inhibited by the sound of the wind and the sea. At Akahanga, on a relatively calm February day, it was impossible for us to communicate orally between the back area of the west and east components of the *ahu*. The backs of *ahu* near the sea are frequently engulfed in a misty

spray when the waves are high (see the description of Te Pito Kura in Smith 1961:195). The same sea winds would have wind-dried and blown away the stench of rotting exposed bodies and also the acrid fumes of burning them on the crematoria — that are classically, but not exclusively, found at the back of *ahu*. Concurrently, the updraft of air as the wind hit the back of the *ahu* would have oxygenated crematoria fires and aided the combustion of bodies. Polynesian tradition, as discussed above, suggests that these areas may have been exclusively "male" spaces.

ii) The area in front of the *ahu* platform and the associated plaza area (up to c. 200 m inland).

In contrast, immediately in front of the *ahu*, the height and density of the *ahu* platform substantively baffles the noise and impact of sea winds and the temperature feels markedly warmer, creating a still microclimate. Unpredictable, high spurts of white spray from the crashing waves behind the platform provide a visually dramatic backdrop to the *ahu* when viewed from immediately in front and from the proximate plaza — but only the spray, not the sea, can be seen. With increased body distance from the *ahu*, the horizon takes on a visual and potentially cosmological significance. At distances from the front of the *ahu* of c. 100 m at Ura Uranga and Tarakiu the sea appears on either side of an *ahu*. For a human eye-view, towards the inland end of the plaza, the top of the *ahu* platform becomes visually coincident with the sea / sky horizon, giving the visual impression that the statues directly intercede between land and sky. The later effect continues up to distances of c. 200 / 300 m inland and can coincide with the general point at which the boat-shaped houses are often situated facing seawards (Vargas *et al.* 2006: 210, fig.5.23; Figure 6).

The plaza floors are consistently level, probably at least in part due to sediment infill of the dry valley bottoms with which they are often associated. They appear to have been kept stone free, since there is an un-naturally sharp division between the plaza and the juxtaposing stony areas beyond and this is most striking at Tarakiu and Ura Uranga. At Tahai, the tiered effect of each plaza with respect to the other suggests the possibility that they were actually landscaped (Figure 2). Such examples suggest that the plazas were designed and conceived as open arenas and that within them views of the *ahu* platform would have lacked visual obstruction by trees. In situ experiments suggest that under such conditions any construction activities and raised human voices associated with activities in front of the *ahu* could have been heard up to the inland perimeter of the plaza but rarely beyond (Table 2). Thus, the plaza may have effectively provided a sensorial-controlled area where the sound and vision of the sea is minimized while the sounds of activities travel (Figure 6). The activities associated with the plazas are somewhat under-elaborated in the literature, but given the ritualized nature of Polynesian canoe construction — in addition to other activities — the *ahu* plaza may have been locations for canoe building and maintenance prior to launching. Best's consideration of the spiritual and mental concepts of Maori canoe construction emphasizes the separation between the everyday and canoe making (1976:95). Women and children were not allowed to approach a canoe under construction and the final construction stages took place near to where it was to be launched, this being a *tapu* place where the tools of construction had to stay put and where the workmen had special garments to wear when working on the canoe. Pragmatically, canoe construction would have benefitted from the flat ground of the plaza and the tools, adzes and ropes used for *ahu* construction may have equally been used for this activity. Possibly, our find of a fragment of polished axe at Tarakiu (Figure 7) could point to fine woodworking associated with the finishing of canoes, whilst coral, which collects in the rock pools behind the *ahu*, was traditionally used for polishing / finishing canoe woodwork (Baybayan 2008).



Figure 7. Fragments of polished tools (for fishing canoes?) from Tarakiu plaza (left) and Ura Uranga *ahu* landscape (right).

iii) The "ahu landscape" (from c. 200-300 m to 1 km inland).

The coastal image *ahu* are situated in locations that are hidden for much of their inland landward approach. Sensory knowledge of them is occasionally physically blocked by hills — most extraordinarily at Ahu Naunau (Routledge 2005,

fig. 97), or more recurrently by their positioning in valleys — even when they are on sea cliff tops such as at Vinapu and Maitaki Te Moa. These topographically defined and visually constrained spaces associated with the coastal *ahu* penetrate up to 1km inland from the *ahu* platforms and are what I term the "*ahu* landscapes". From a sensory perspective these *ahu* landscapes extend inland up to the topographic lip of the valley and in today's deforested landscape this is the maximal extent of what can physically be seen from the *ahu*. Equally, in a seaward direction each *ahu* landscape constitutes the maximal landscape from which its associated *ahu* can be perceived.

Table 2. Experimental sound characteristics of *ahu* landscapes.

Sound	Meters inland that sound disseminated from in front of the <i>ahu</i> platform could be heard
Chat female and male voice	10
Stressed sentences: female and male voice	50
Stone percussion (basalt on vesicular basalt)	110
Male shout	140
Female shout	150
Female yell	170
Male yell	180

Noise source: Hanga Tee o Vaihu: Front of *ahu* directed to *ahu* landscape, February 2007.
Conditions: low cross wind east to west, dry and sunny; 4:05 pm.

Seaward-facing boat-shaped houses are classically positioned at the interface between ii) and iii). At Te Peu, for example, this coincides with the first slight topographic rise above the plaza and here the houses overlook and bound the plaza's outermost extent. At this point in the *ahu* landscapes the statues and plaza are visible in their entirety but the sounds of activities on the plaza would have been inaudible. Fully into the *ahu* landscape, the *ahu* and its *moai* takes on a more distant persona and at Ura Uranga from a distance of c. 750 m, the *ahu* gives a visual impression of being a vessel floating on the sea (cf. Figure 8 for a similar effect at Tongariki). The precise nature of this *trompe d'oeille* varies today from site to site and any original tree cover beyond the plaza would have restricted any such visibility. At these distances with or without tree clearance the plaza area is fully foreshortened and its activities are wholly hidden, often being below a human sight line. The daily activities of this zone were ultimately evidenced by the presence of stone mulching, *umu*, and *manavai*. In Polynesian tradition, ideas of "inland" and "cultivation" are often female-associated. This suggests that these landscapes may be metaphorically differently gendered to those more closely associated with the sea. There are distant reminders of the sea, the *ahu* and the "*moai* gaze" — but they are not a palpable presence. Interestingly, from a sensory perspective the dispersed rocky outcrops and the January / February cooling breezes that they afford when surmounted are the more dominant. It is on these out crops that evidence of obsidian working was most often found— by contrast obsidian is rare in the plaza area (Figure 6).



Figure 8. *Ahu* Tongariki appearing as a *trompe d'oeille* canoe in the sea.

iv) Beyond the *ahu* landscape (c. > 1 km inland).

These landscapes were not part of this study, and brief comment must suffice here. Approaching the coastal *ahu* inland from beyond the *ahu* landscape, the *ahu* and their settings are generally wholly hidden places due to their valley positions. It is only the sea itself that can be seen and increasingly heard. On entering the rim of the valley, the *ahu* are today dramatically revealed and this revelatory drama must have been part of the consciousness of at least the later *ahu* landscapes.

Thus, human sensory and perhaps gendered experiences of coastal *ahu* relationships with the sea would have been very different in the four zones of *ahu* backspace, *ahu* plaza, the *ahu* landscape, and the inland world beyond. In the backspace, the sea dominates and access to the sea is controlled. In the plaza the sea is present as muffled sound and spray emerging above the *ahu*. In the *ahu* landscape — ultimately in the expansion phase of c. AD 1100-1680 of rock gardens and *manavai* — the *ahu* with its standing *moai* has all the characteristics of a distant, peopled or multiple-mast canoe at sea, while further inland looking seaward, the sea alone dominates. A seaward journey to coastal *ahu* thus would have encountered staged sensory experiences that played on the relationship of the *ahu* to the sea and on the sea and *ahu* to the horizon. Polynesian male / female binary oppositions associated with the sea suggest that the *ahu* backspace and plaza area may have been male gender-associated, while the *ahu* landscape may have had more overtly female gendered-associations.

Conclusion

For the past forty years Rapa Nui and its *ahu* have been studied in a conceptual frame of Polynesian chiefdom territories. Research has less often drawn upon the Polynesian and wider Oceanic studies to explore the seaward context of the *ahu* and their associated landscapes. This literature can usefully inform contextual landscape studies of the *ahu*. When Rapa Nui's land and sea features are considered from a symbolic and sensory perspective can be suggested that the locations of *ahu* are as much conceptual and framed by sensory and gendered perceptions as opposed to simply being a product of socio-economic territorial organization. Isolating such ideas becomes viable when *ahu* are investigated as structures with specific relationships to places and particular understandings of the world, rather than more narrowly focusing on them as independent architectural edifices. While interest has often been expressed in what the eyes of the *moai* gazed at, a reversal in perspective is to consider what people under the *moai* gaze experienced — which can be characterized as a seaward perspective. The architecture of the *ahu* and the structures of the *ahu* landscapes recurrently make reference to the sea in terms of the incorporation of sea-generated materials and canoe-like structural forms. The relationship of the backs of the *ahu* to the sea is intimate. It both facilitated and controlled access to the sea via monumental slipways and the positioning of coastal *ahu* on bays was a key concern. It is important to explore social practice at an individual human scale rather than the patterning produced by the activities at the more generalized level of corporate clan groups. People working within an *ahu* landscape and for those individuals that had access — based on gender, age, or other forms of status — approaching the plaza, moving into the backspace, or launching a canoe would have all experienced mimetic and metaphoric prompts to particular ritual and mythical concepts of the sea, sea vessels, and sea journeys, be they of the living or the dead.

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